or a pupil area of the ocular cornea of said animal with at least one water-absorbing material selected from the group consisting of a polyol, an amino acid, a peptide and a water-soluble polymer and thereby generating a difference in osmotic pressure between the inside and outside of the ocular corneal epithelium cells.

45. The experimental animal claimed in Claim 44, wherein said mammal is rabbit.

46. The experimental animal claimed in Claim 44, wherein said water-absorbing material is a saccharide.

47. The experimental animal claimed in Claim 44, wherein said water-absorbing material is at least one saccharide selected from the group consisting of glucose, maltose, sucrose, fructose, dextran and starch.

48. The experimental animal claimed in Claim 44, wherein said water-absorbing material is used in the physical state selected from powder, solution, gel, jelly or tablet.

49. An experimental animal having corneal epithelial damage, wherein said experimental animal is a non-human mammal or a fowl, wherein said corneal epithelial damage is caused by covering the ocular cornea of said animal with a water-impermeable membrane or

film having a hole or holes in it, said membrane or film being placed on the ocular cornea so that the hole or holes in the membrane or film comes on around the pupil area thereof, contacting the whole area of the ocular cornea or a part thereof, or a pupil area of the ocular cornea of said animal with a water-absorbing material through said hole or holes of the membrane or film and thereby generating a difference in osmotic pressure between the inside and outside of the ocular corneal epithelium cells.

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50. The experimental animal claimed in Claim 49, wherein said mammal is rabbit.

51. The experimental animal claimed in Claim 49, wherein said water-absorbing material is at least one of materials selected from the group consisting of a polyol, a salt, an amino acid, a peptide and a water-soluble polymer.

52. The experimental animal claimed in Claim 49, wherein said water-absorbing material is at least one of materials selected from the group consisting of a saccharide, an alkali metal salt and an alkali earth metal salt.

53. The experimental animal claimed in Claim 49, wherein said water-absorbing material is at least one saccharide selected from

the group consisting of glucose, maltose, sucrose, fructose, dextran and starch.

54. The experimental animal claimed in Claim 49, wherein said water-absorbing material is used in the physical state selected from powder, solution, gel, jelly or tablet.

55. An experimental animal having corneal epithelial damage, wherein said experimental animal is a non-human mammal or a fowl, wherein said corneal epithelial damage is caused by contacting the whole area of the ocular cornea or a part thereof, or a pupil area of the ocular cornea of said animal with a water-absorbing material through a water-permeable or semi-permeable membrane or film and thereby generating a difference in osmotic pressure between the inside and outside of the ocular corneal epithelium cells.

56. The experimental animal claimed in Claim 55, wherein said mammal is rabbit.

57. The experimental animal claimed in Claim 55, wherein said water-absorbing material is at least one of materials selected from the group consisting of a polyol, a salt, an amino acid, a peptide and a water-soluble polymer.

58. The experimental animal claimed in Claim 55, wherein said water-absorbing material is at least one of materials selected from the group consisting of a saccharide, an alkali metal salt and an alkali earth metal salt.

59. The experimental animal claimed in Claim 55, wherein said water-absorbing material is at least one saccharide selected from the group consisting of glucose, maltose, sucrose, fructose, dextran and starch.

60. The experimental animal claimed in Claim 55, wherein said water-absorbing material is used in the physical state selected from powder, solution, gel, jelly or tablet.

61. The experimental animal claimed in Claim 44, wherein said animal can be used as a dry eye model.

62. The experimental animal claimed in Claim 49, wherein said animal can be used as a dry eye model.

63. The experimental animal claimed in Claim 55, wherein said animal can be used as a dry eye model.

64. A method of screening or evaluating a medicine for treatment or improvement of a corneal epithelial damage, which comprises the steps of:

(i) administering a medicine to a damaged ocular cornea of the experimental animal claimed in Claim 44; and

(ii) evaluating the therapeutic effect thereof on the corneal epithelial damage.

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65. A method of screening or evaluating a medicine for treatment or improvement of a corneal epithelial damage, which comprises the steps of:

(i) administering a medicine to a damaged ocular cornea of the experimental animal claimed in Claim 49; and

(ii) evaluating the therapeutic effect thereof on the corneal epithelial damage.

66. A method of screening or evaluating a medicine for treatment or improvement of a corneal epithelial damage, which comprises the steps of.

(i) administering a medicine to a damaged ocular cornea of the experimental animal claimed in Claim 55; and

(ii) evaluating the therapeutic effect thereof on the corneal epithelial damage.

67. The method claimed in Claim 64, wherein said step (ii) comprises the steps of:

staining a damaged area of the ocular corneal epithelium either

(a) after administration of the medicine or

(b) before and after administration of the medicine; and

determining change in the stained area of the ocular corneal epithelium.

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68. The method claimed in Claim 65, wherein said step (ii) comprises the steps of:

staining a damaged area of the ocular corneal epithelium either

(a) after administration of the medicine or

(b) before and after administration of the medicine; and

determining change in the stained area of the ocular corneal epithelium.

69. The method claimed in Claim 66, wherein said step (ii) comprises the steps of:

staining a damaged area of the ocular corneal epithelium either

(a) after administration of the medicine or

(b) before and after administration of the medicine; and

determining change in the stained area of the ocular corneal epithelium.

70. A method of producing an experimental animal having corneal epithelial damage, wherein said experimental animal is a non-human mammal or a fowl, comprising the step of:
contacting the whole area of the ocular cornea or a part thereof, or a pupil area of the ocular cornea of said animal with at least one water-absorbing material selected from the group consisting of a polyol, an amino acid, a peptide and a water-soluble polymer and thereby generating a difference in osmotic pressure between the inside and outside of the ocular corneal epithelium cells.

71. A method of producing an experimental animal having corneal epithelial damage, wherein said experimental animal is a non-human mammal or a fowl, comprising the steps of:
covering the ocular cornea of said animal with a water-impermeable membrane or film having a hole or holes in it, said membrane or film being placed on the ocular cornea so that the hole or holes in the membrane or film comes on around the pupil area thereof, and contacting the whole area of the ocular cornea or a part thereof, or a pupil area of the ocular cornea of said animal with a water-absorbing material through said hole or holes of the membrane or film and thereby generating a difference in osmotic pressure between the inside and outside of the ocular corneal epithelium cells.

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72. A method of producing an experimental animal having corneal epithelial damage, wherein said experimental animal is a non-human mammal or a fowl, comprising the step of contacting the whole area of the ocular cornea or a part thereof, or a pupil area of the ocular cornea of said animal with a water-absorbing material through a water-permeable or semi-permeable membrane or film and thereby generating a difference in osmotic pressure between the inside and outside of the ocular corneal epithelium cells.--

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